

# Wildland Urban Interface

Since the development and implementation of the National Fire Plan, a marked increase in attention to fuel treatment in the wildland urban interface has occurred. However, there appears to be some confusion or differing interpretation as to what the wildland urban interface actually is and what constitutes reportable wildland urban interface projects. The following information reinforces existing wildland urban interface definitions and clarifies valid wildland urban interface fuel treatment projects:

## Definition – Wildland Urban Interface:

Wildland Urban Interface currently has two accepted definitions:

- **“the Urban Wildland Interface community exists where humans and their development meet or intermix with wildland fuel.”**  
*This definition is found in the Federal Register/Vol. 66, No. 3/Thursday, January 4, 2001/Notices; and “Fire in the West, The Wildland/Urban Interface Fire Problem”, which is the “A Report for the Western States Fire Managers”, September 18, 2000.*
- **“the line, area, or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuel.”**  
*This definition is found in the NWCG Glossary and the 10-Year Comprehensive Strategy Implementation Plan.*

Based on the existence and use of the above-stated definitions, there is no further need to redefine or create definitions of the wildland urban interface.

## Interface

To quote from Paul Summerfelt, the City of Flagstaff Fuel Management Officer; "The 'interface,' where it is and what it is, has long been a matter of discussion among land managers and wildland fire professionals. With the release of the National Fire Plan in the fall of 2000, and subsequent congressional appropriations designed to treat hazardous fuels, new parties have joined the debate. The reality that few understand, and that fewer are willing to accept, is that the interface is big, and can easily encompass several jurisdictions and ownerships. It extends for miles, includes substantial public land and all of it needs attention and treatment..."

Paul Summerfelt prefers a wider definition based on community values. “We look at the interface, and where we want to work is miles outside our community. Because while the flames may not threaten us directly in town, all those other things will be affected.” He referred to tourism, recreation, and wildlife as examples.

How to best protect communities from fire is a matter of some controversy, beginning with how WUI is defined. The Southwest Forest Alliance considers WUI "areas where urban fuels directly meet forest fuels. This is primarily within 20-60 meters (66-200 feet) of houses, where fire most directly threatens the house, and where a defensible zone can be developed”

wildlife, and recreational opportunities accessible from their own back doors. Unfortunately forests and fires come as a package deal. This is a fact of life for people living in the “Wildland Urban Interface”.



Homes in the community of Gibbonsville north of Salmon are embedded in moderate to dense forest area.

People enjoy living in the forest with trees,



Aftermath of the 2003 Tobias wildland fires.

A growing body of research suggests that “the only effective home protection treatment is treatment in, on, and around the house; homeowners must be responsible for protecting that property” (Nowicki 2001, p. 1:3). U.S. Forest Service research scientist, Jack Cohen stated that “home ignitions are not likely unless flames and firebrand ignitions occur within 40 meters [131 feet] of the structure; the WUI fire loss problem primarily depends on the home and its immediate site”.

President Bush’s “Healthy Forest Initiative” proposes to protect communities from wildfire by allowing more commercial logging and bypassing certain environmental regulations. However, a panel of forestry experts and firefighters have concluded that logging forests outside the wildland-urban interface will do little to protect communities from fire (Walker and Schardt 2002).

It is clear that Congress expected the Secretaries of the Interior and Agriculture to develop a definition by which urban wildland interface communities could be identified. Further research into this directive and reading of the Federal Register, revealed that the Secretaries, in fact, based their resulting definition on the definition presented in “Fires in the West – The Wildland/Urban Interface Fire Problem A Report to the Council of Western State Foresters”.

The following material outlines the resulting Federal Register definition.

#### **Federal Definition:**

- Federal Agencies establishing the definition consulted with the States, Tribes, local governments, and other interested parties; made a few modifications to the definition in the report (Fires in the West). The resulting definition is as follows:
- There are three categories of communities that meet this description. Generally, the Federal agencies will focus on communities that are described under categories 1 and 2. For purposes of applying these categories and the subsequent criteria for evaluating risk to individual communities, a structure is understood to be either a residence or a business facility, including Federal, State, and local government facilities. Structures do not include small improvements such as fences and wildlife watering devices.

#### Category 1

*Interface Community.* The Interface Community exists where structures directly abut wildland fuels. There is a clear line of demarcation between residential, business, and public structures and wildland fuels. Wildland fuels do not generally continue into the developed area. The development density for an interface community is usually 3 or more structures per acre, with shared municipal services. Fire protection is generally provided by a local government fire department with the responsibility to protect the structure from both an interior fire and an advancing wildland fire. An alternative definition of the interface community emphasizes a population density of 250 or more people per square mile.

## Category 2

*Intermix Community.* The Intermix Community exists where structures are scattered throughout a wildland area. There is no clear line of demarcation; wildland fuels are continuous outside of and within the developed area. The development density in the intermix ranges from structures very close together to one structure per 40 acres. Fire protection districts funded by various taxing authorities normally provide life and property fire protection and may also have wildland fire protection responsibilities. An alternative definition of intermix community emphasizes a population density of between 28-250 people per square mile.

## Category 3

*Occluded Community.* The Occluded Community generally exists in a situation, often within a city, where structures abut an island of wildland fuels (e.g., park or open space). There is a clear line of demarcation between structures and wildland fuels. The development density for an occluded community is usually similar to those found in the interface community, but the occluded area is usually less than 1,000 acres in size. Fire protection is normally provided by local government fire departments.

## Evaluating Risk

Preliminary Criteria for Evaluating Risk to Communities:

The Secretaries were required to publish in the Federal Register an updated list of Urban Wildland Interface communities within the vicinity of Federal lands that are at high risk from wildfire. The following communities are located in Lemhi County, which are listed in the Federal Register.

Carmen  
Cobalt  
Gibbonsville

North Fork  
Salmon  
Shoup

### Risk Factor 1: Fire Behavior Potential

#### Situation 1 (*High*)

In these communities, continuous fuels are in close proximity to structures. The composition of surrounding fuels is conducive to crown fires or high intensity surface fires. There are steep slopes, predominantly south aspects, dense fuels, heavy duff, prevailing wind exposure and/or ladder fuels that reduce fire fighting effectiveness. There is a history of large fires and/or high fire occurrence.

#### Situation 2 (*Moderate*)

In these communities, there are moderate slopes, broken moderate fuels, and some ladder fuels. The composition of surrounding fuels is conducive to torching and spotting. These conditions may lead to moderate fire fighting effectiveness. There is a history of some large fires and/or moderate fire occurrence.

#### Situation 3 (*Low*)

In these communities, grass and/or sparse fuels surround structures. There is infrequent wind exposure, flat terrain with little slope and/or predominantly a north aspect. There is no large fire history and/or low fire occurrence. Fire fighting generally is highly effective.

### Risk Factor 2: Values At Risk

#### Situation 1 (*Interface Communities*)

This situation most closely represents a community in an urban interface setting. The setting contains a high density of homes, businesses, and other facilities that continue across the interface. There is a lack of defensible space where personnel can safely work to provide protection. The community watershed for municipal water is at high risk of being burned compared to other watersheds within that geographic region. There is a high potential for economic loss to the community and likely loss of housing units and/or businesses. There are unique cultural, historical or natural heritage values at risk.

#### Situation 2 (*Intermix and Occluded Communities*)

This situation represents an intermix or occluded setting, with scattered areas of high-density homes, summer homes, youth camps, or campgrounds that are less than a mile apart. This situation would cover the presence of lands at risk that are described under State designations such as impaired watersheds, or scenic byways. There is a risk of erosion or flooding in the community if vegetation burns.

### Risk Factor 3: Infrastructure

#### Situation 1 (*Extremely Vulnerable Community*)

In these communities, there are narrow dead end roads, steep grades, one way in and/or out routes, no or minimal fire fighting capacity, no fire hydrants, no surface water, no pressure water systems, no emergency operations group, and no evacuation plan in an area surrounded by a fire-conductive landscape.

#### Situation 2 (*Vulnerable Community*)

In these communities, there are limited access routes, moderate grades, limited water supply, and limited fire fighting capability in an area surrounded by scattered fire-conductive landscape.

#### Situation 3 (*Prepared Community*)

In these communities, there are multiple entrances and exits that are well equipped for fire trucks, wide loop roads, fire hydrants, open water sources (pools, creeks, lakes), an active emergency operations group, and an evacuation plan in place in an area surrounded by a fireproof landscape.

## Summary

The task at hand is to establish a definition regarding what constitutes Wildland Urban Interface areas in and adjacent to the Salmon-Challis National Forest and agree to identify the resulting areas and to graphically display this data on a GIS layer. We have been given plenty of leeway to make this decision at the community level and with little direction to guide the process. Advocate caution against a radical independent approach when determining the definition. Five basic principles have been suggested to keep in mind when establishing the definition. These principles are as follows:

- 1) Assure the definition that we adopt is defensible.
- 2) A logical analysis process for determining Wildland Urban Interface areas accompanies the definition.
- 3) The definition serves as a useful tool and aid for focusing the limited resources allocated to the Forest Hazard Fuels Programs.
- 4) The definition and any resulting analysis process be based on a set of established criteria rather than emotional or intangible feelings.
- 5) The results of this work and accompanying analysis are graphically displayed on a GIS produced map.

Basis found for using the federal definition are that it is broadly written and local concerns can easily be addressed through local interpretation of its provisions.